

Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services

STATEMENT OF BASIS

Jefferson Davis Sanitary Landfill Commission
Welsh, Jefferson Davis Parish, Louisiana
Agency Interest Number: 12389
Activity Number: PER20050002
Proposed Permit Number: 1360-00060-V1

I. APPLICANT

Company:

Jefferson Davis Parish Sanitary Landfill Commission
Rt 3 Box 291
Welsh, Louisiana 70591-0000

Facility:

Jefferson Davis Sanitary Landfill
16157 Landfill Rd
Welsh, Jefferson Davis Parish, Louisiana
Latitude: 30°2'6.50" Longitude: 92°8'6.04"

II. FACILITY AND CURRENT PERMIT STATUS

The Jefferson Davis Parish Sanitary (Jeff Davis) Landfill located in Jefferson Davis Parish is owned by Jefferson Davis Parish Sanitary Landfill Commission and operated by BFI Waste Systems of Louisiana, LLC. The Jefferson Davis Landfill began accepting municipal solid waste in 1988 and has a design capacity of approximately 7.28 million megagrams (Mg). Since the design capacity is greater than 2.5 million Mg and 2.5 million cubic meters, the site is subject to the New Source Performance Standards (NSPS) within Title 40 Code of Federal Regulations (40 CFR) Part 60, Subpart WWW for municipal solid waste (MSW) landfills. As such, the site is required to have a Title V Operating Permit.

Solid waste is received and taken directly to the landfill for disposal. The anaerobic decomposition of organic waste in landfills results in the generation of biogas commonly referred to as LFG. Consisting of approximately 50 percent methane and 50 percent carbon dioxide, LFG also contains other trace organic compounds and water vapor. A landfill with a soil cover emits LFG emissions as the LFG permeates vertically through the cover soils and escapes into the atmosphere. The facility currently operates an active GCCS in the landfill, which conveys it to the existing LFG flare and/or LFGTE facility owned and operated by SouthTex Renewable Energy. Since the LFGTE facility is owned and operated by a separate company, the emissions from the LFGTE facility are not included within this permit.

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The Jefferson Davis Parish Sanitary Landfill currently operates under Permit No. 1360-00060-V0, issued May 25, 2004.

III. PROPOSED PROJECT/PERMIT INFORMATION

Application

A permit application and Emission Inventory Questionnaire were submitted by Jefferson Davis Parish Landfill on October 21, 2005, requesting a modification to the Part 70 operating permit. An updated renewal and modification application was submitted November 25, 2008. This updated application completely superseded the previously submitted application. Additional information dated January 29, 2009 and March 9, 2009.

Project

With this Part 70 Operating Permit Renewal, the following revisions are made:

- Revise Emission Point No. 1 – Flare: The emissions from the flare in Permit No. 1360-00060-V0 were based on an enclosed flare. In accord with the Authorization to Construct dated October 31, 2005, the enclosed flare was replaced with a candlestick flare which has a design flow of 4,500 scfm.
- Add Emission Point No. 7 – Earthmoving Operations.
- Add Emission Point No. 8 – Air Compressor.
- Add Emissions Point No. 9 – Emergency Generator.

Proposed Permit

Permit 1360-00060-V1 will be the renewal/modification of Part 70 operating permit 1360-00060-V0 for the Jefferson Davis Parish Landfill.

Permitted Air Emissions

Estimated emissions in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	18.39	24.32	+5.93
SO ₂	2.29	9.78	+7.49
NO _x	32.98	50.42	+17.44
CO	115.70	243.5	+127.8
VOC	9.70	27.86	+18.16
TAPs	2.86	18.19	+15.33

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IV REGULATORY ANALYSIS

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.

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Applicability and Exemptions of Selected Subject Items

ID No:	Requirement	Notes
UNF01 - Entire Facility	40 CFR 68 – Chemical Accident Prevention Provision	DOES NOT APPLY. The facility does not have more than the threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115.
	40 CFR 82 – Protection of Stratospheric Ozone	DOES NOT APPLY. No applicable CFC-containing equipment on site. Jefferson Davis Landfill does not manufacture any ozone depleting substances as identified in 40 CFR 82.
	Comprehensive Toxic Air Pollutant Emission Control Program [LAC 33:III.Chapter 51]	EXEMPT. Facility is not a major source of TAPs emitting less than 10 tons per year of any toxic air pollutant listed in LAC 33:III.5112, Table 51.1 or 25 tons per year or more of any combination of toxic air pollutants listed in LAC 33:III.5112, Table 51.1.
	Chemical Accident Prevention and Minimization of Consequences [LAC 33:III.5901]	DOES NOT APPLY. The facility does not process more than the threshold quantity of a regulated pollutant.
CRG01 - Portable Pumps Common Rqt. Group EQT 05, 06, 07, 08, 09 – Portable Pumps	Emission Standards for Sulfur Dioxide [LAC 33:III.Chapter 15]	DOES NOT APPLY. The single point sources emit less than 5 tons per year of sulfur dioxide into the atmosphere.
EQT 02 – Diesel Fuel Storage Tank	Storage of Volatile Organic Compounds [LAC 33:III.2103]	DOES NOT APPLY. Vapor pressure less than 1.5 psia.
	NSPS Subpart K – Standards of Performance for Volatile Organic Liquid Storage Vessels [40 CFR 60.110]	DOES NOT APPLY. Tank capacity <40,000 gallons.
	NSPS Subpart Ka – Standards of Performance for Volatile Organic Liquid Storage Vessels [40 CFR 60.110a]	DOES NOT APPLY. Tank capacity <40,000 gallons.
	NSPS Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels [40 CFR 60.110b]	DOES NOT APPLY. Tank stores a liquid with a vapor pressure <0.5 psia and tank capacity <40,000 gallons.

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ID No:	Requirement	Notes
EQT 05 & 06 – Portable Gasoline Pumps	NSPS Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines [40 CFR 60.4230]	DOES NOT APPLY. Pumps were manufactured prior to July 1, 2008.
	NESHAP Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	DOES NOT APPLY. Pumps were manufactured prior to June 12, 2006.
EQT 07, 08 & 09 – Portable Diesel Pumps	NSPS Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines [40 CFR 60.4200]	DOES NOT APPLY. Pumps were manufactured prior to April 1, 2006.
	NESHAP Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	DOES NOT APPLY. Pumps were manufactured prior to June 12, 2006.
EQT 10 – Air Compressor	NSPS Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines [40 CFR 60.4230]	DOES NOT APPLY. Air compressor was manufactured prior to July 1, 2008.
	NESHAP Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	DOES NOT APPLY. As a NESHAP new source, the air compressor is required to meet NSPS Subpart JJJJ new source requirements, as appropriate. However, the air compressor does not meet the definition of a new source under NSPS.
EQT 11 – Emergency Generator	NSPS Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines [40 CFR 60.4230]	DOES NOT APPLY. Generator was manufactured prior to July 1, 2008.
	NESHAP Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	DOES NOT APPLY. Generator was manufactured prior to June 12, 2006.
FUG 03 – Leachate Pond	Control of Emission of Organic Compounds – Limiting VOC Emissions from Industrial Wastewater [LAC 33:III.2153]	DOES NOT APPLY. Landfills are not covered under LAC 33:III.2153.

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Prevention of Significant Deterioration/Nonattainment Review

This permit was reviewed for compliance with 40 CFR 70, the Louisiana Air Quality Regulations, New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP). Prevention of Significant Deterioration (PSD) regulations do not apply.

Streamlined Equipment Leak Monitoring Program

Unit or Plant Site	Program Being Streamlined	Stream Applicability	Overall Most Stringent Program
Jefferson Davis Parish Landfill	None		

MACT Requirements

The facility is not a major source of Toxic Air Pollutants pursuant to LAC 33:III.Chapter 51.

Air Quality Analysis

Emissions associated with the proposed modification were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS. LDEQ did not require the applicant to model emissions.

General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the proposed permit.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the proposed permit.

V. PERMIT SHIELD

There is no permit shield requested in this permit action according to LAC 33:III.507.I.

VI. PERIODIC MONITORING

Federal regulation 40 CFR 64 – Compliance Assurance Monitoring is not applicable to this facility.

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The facility shall be required to monitor landfill parameters as described in 40 CFR 60 Subpart WWW – New Source Performance Standards for Municipal Solid Waste Landfills to ensure proper operation of the gas collection and control system.

The facility will be required to comply with the flare operation parameters as described in 64 WWW – New Source Performance Standards for Municipal Waste Landfills to ensure proper operation of the candlestick flare.

VII. GLOSSARY

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

Hydrogen Sulfide (H₂S) – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

New Source Review (NSR) – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C (“Prevention of Significant Deterioration of Air Quality”) and D (“Nonattainment New Source Review”).

Nitrogen Oxides (NO_x) – Compounds whose molecules consist of nitrogen and oxygen.

Organic Compound – Any compound of carbon and another element. Examples: Methane (CH₄), Ethane (C₂H₆), Carbon Disulfide (CS₂)

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: ≥ 10 tons per year of any toxic air pollutant; ≥ 25 tons of total toxic air pollutants; and ≥ 100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM₁₀ – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

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Potential to Emit (PTE) – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO₂) – An oxide of sulfur.

Sulfuric Acid (H₂SO₄) – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those, which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.